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MONTHLY MAGAZINE.

DECEMBER, 1878.

WITH this number ends another year of labor—one of pleasure to us and, we hope, of profit to our readers. It is pleasant to talk to forty or fifty thousand people, people who think, people of taste and refinement; old people, and young people, and children who love flowers and the beautiful everywhere and in everything. We care not whether this love is shown by a grand conservatory of choice exotics, by a few pots of Geranium in the window of the tenant house, or by a little bed of annuals in the farmer's garden. There is a community of feeling among lovers of flowers nearer and dearer than the world imagines, and that those outside of the enchanted circle know nothing about. This feeling is spontaneous and irrepressible, like the love of the little child who loved her mother "because she couldn't help it."

Many a pleasant gossip have we had this summer, under the trees, on the grass, in the ivy-covered porch; and in the cool of the day how often have we wandered along the garden walks, sometimes among the Roses and the Pansies and Hollyhocks, and Gladioli; and later, what a nice time we have had with the Asters and Dahlias.

Together have we discovered some interesting things about flowers and their culture—not new, perhaps, but new to some—and spoken freely of our successes and failures, our hopes and fears; sought for remedies for insect enemies and strange diseases to which plants are

subject; while we have certainly gained some information about their treatment, especially under the difficulties of house culture. About sowing fine seeds, which are very delicate, and will only grow under very favorable circumstances, we have talked pretty freely, if not wisely; but among such a multitude of counselors there must be some wisdom.

Although our MAGAZINE family has been very select, it has been quite large and occupied nearly the whole world, for we have had gossip from France, England and Germany, from the coasts of Maine and the orange groves of Florida, from all parts of the sunny South; from the fertile prairies of the West, where plants grow so large that we almost think they belong to another race, and where persons describe what we innocently call *dwarf*, as being of monstrous proportions; while from the sunny slopes of California and the banks of the Willamette and Oregon rivers we have had many pleasant words.

Our summer's work and summer's pleasures are at an end. To all dwellers in the North the season of buds and blossoms is numbered among the past. The ripened leaves have put on their gala dress of gold and crimson and will soon bid us a long farewell. Memory, however, will retain much of the fragrance and beauty of summer, and all are better and happier for its teachings. Without mourning for the past, let us enjoy the present, and with

the bulbs and plants in the window, and the books and papers by the fireside we can still learn and be happy, and thus become better prepared to meet the difficulties of the coming season, and conquer and enjoy our success. We hope to continue to visit every home and anticipate pleasant and prosperous times.

THE AMARANTHUS.

In the September number, in response to the inquiries of a gentleman of Boston, who sent several leaves desiring to know the name of the plant from which they were taken, we described very briefly several kinds, and also gave some illustrations. At the same time we spoke of a most beautiful *Amaranthus*, of which we had made a colored plate nearly a year before, but which we had feared to present to our readers, lest it might not prove true. As this objection is removed by the results of the past season, we thought it well to present this family a little more fully to the notice of our readers.

The *Amaranthus* are valuable mainly on account of the beauty of their foliage, the flowers being quite small and insignificant, and yet, in some kinds, like *A. caudatus*, often called Love-lies-bleeding, and *A. cruentus*, or Prince's Feather, they are clustered in such immense masses as to form very fine ornamental plants, especially useful in the autumn for decorative purposes, such as trimming tents and exhibition rooms, for the flowers partake somewhat of the character of Everlastings, being so thin and dry that they show no signs of withering or decay for many days. It is this peculiarity that gave the name, *Amaranthus*, from the Greek, which means *never-withering*. The *Amaranthus* has always been a favorite of the poets, and MILTON, when speaking of the host of angels assembled before the Deity, says,—

—“to the ground,
With solemn adoration down they cast
Their crowns, in-wove with amaranth and gold,
Immortal Amaranth, a flower which once
In Paradise, fast by the tree of life,
Began to bloom, but soon for man's offense
To heaven removed, where first it grew, there grows
And flowers aloft, shading the fount of life.”

Some think that this refers to the *Gomphrena*, sometimes called the Globe Amaranth, and not to the true *Amaranth*.

The old Love-Lies-Bleeding must be familiar to all, as it grows so freely as almost to become wild. We have been in countries where it was cultivated with the greatest care, young plants being grown in pots for transplanting to the garden. It came from the East Indies hundreds of years ago. The *Prince's Feather*

bears immense erect racemes of dark crimson flowers. There are several varieties very nearly alike. *A. hypochondras* is a native of Virginia; *A. speciosissimus* originated at Lee Park, a favored spot in Hampshire which we have several times visited: it was long popular, but *A. cruentus* is now considered the most desirable. *A. Hendersonii* is a variety which originated in England a few years since; it has purplish drooping leaves, and its appearance is shown in the engraving. When it comes true it is an elegant plant.

The present popularity of ornamental leaved plants has called special attention to the *Amaranthus*, as there are several varieties with highly colored leaves, and in this respect are certainly equal to any *annual* we cultivate. There is only one objection to them, namely,



AMARANTHUS HENDERSONII.

the colors are not always reliable. Sometimes, and under some conditions (and what these are no one knows,) *A. bicolor* and *tricolor* are beautifully colored, while at others the leaves are almost plain. The *Salicifolius* or Fountain Plant is of a beautiful form, and a good specimen is quite ornamental; but plants seem a little notional about growing.

Our main purpose, however, is to introduce one of the most beautiful foliage plants we have ever seen. It is a pet we have been cultivating for several years, in the hope, not that it would become more beautiful, for it was quite handsome enough from the first to entirely satisfy us in this respect; but knowing the fickle nature of the *Amaranthus* tribe, and how easily led astray, we were exceedingly anxious to see its good qualities established, so that persons who sowed seeds would have good reason to expect a reasonable number of highly colored plants. In this respect our hopes have been realized, and we are quite sure that at least ninety per cent.

will produce brilliant plants, quite as good as that shown in our colored plate. There is one difficulty, however, which we have not been able to overcome. Plants will start well and grow well, yet, without apparent cause, many will die. In this respect it is like *salicifolius*. A year or so since we named this variety *Sunrise*. We have shown it at several State Fairs, and no one plant we ever exhibited attracted so much attention as this.

Some of the *Celosias* have rich foliage, and make brilliant beds, particularly the one described and figured in the MAGAZINE for May, and at the present writing, after the middle of October, *Superba plumosa* is the most brilliant in our grounds. The only objection to this plant for bedding is the fact that it does not reach a very showy condition until somewhat late in the season. This, however, is an objection we may urge against all annual ornamental-leaved plants, and indeed the perennial foliage plants seldom make much show until well into the summer. The only remedy for this seems to be in the early-flowering bulbs, which may be removed early enough for putting out bedding plants.

Having introduced the *Japanese Cockscomb*, which is infinitely superior to all others, to the floral world, and more recently the best *Feathered Celosia* in existence, we now take pleasure in calling attention to another beautiful plant that is the equal of either, in fact, a marvel of beauty; but, like other beauties, we fear possesses a rather delicate constitution, which we hope time will improve; and but for this fact we should consider it a grand acquisition.

THE BEET SUGAR INDUSTRY.

At a late sitting of the American National Agricultural Congress, held at New Haven, Conn., Mr. E. T. GENNETT, of Maine, gave a brief history of the Beet Sugar industry in Europe; of the attempts to establish it at Northampton, Mass., in 1836, at Chatsworth and Freeport, Ill., in Wisconsin, in Iowa, and in California—with reasons for non-success, and of the subsidy now offered by Maine for its initiation in that State. He says there are 300 acres planted in Beets by 1,000 farmers of Maine for this experiment, and not less than 3,000 tons will be harvested. Analyses have already been made, which show as large a percentage of saccharine matter as is contained in the Beets of Europe. Sugar begins to develop after the expiration of half the period of growth. Three analyses of plants of seventy-six, sixty-six, and forty-six days' growth respectively, were made

August 1, and again on the 15th, with the following results:

AUGUST 1.		AUGUST 15.	
Solids.	Sugar.	Solids.	Sugar.
10.8 per cent.,	6.7 per cent	13.5 per cent.,	9.9 per cent
11 per cent.,	6.9 per cent	13.8 per cent.,	10.7 per cent
1.8 per cent.,	5.3 per cent	11.4 per cent.,	8.4 per cent

He is confident of success, and hopes to see half a million acres appropriated to Beet culture, or, rather, that it shall occupy a fourth part of 2,000,000 acres in proper location, and aid in enforcing the practice of subsoiling, tile drainage and high culture generally, giving wealth to multitudes and an impetus to improved husbandry.

As we have been kindly furnished with copies of the address of Professor GENNETT, we can supply them to those who desire, at the cost of postage.

SOLANUMS.

The Solanums are very pretty winter plants, of which there are many varieties, some of them recently recommended to the people. The old *Jerusalem Cherry* is of course well known to all old gardeners, but it is not now so commonly grown as formerly. There is a very



pretty dwarf variety, called *S. pseudo-capsicum nanum*, of which we give an engraving, and the last number of the *London Gardeners' Chronicle* introduces a new variety, named as *Solanum hybridum, Empress*, with the following remarks: "Few ornamental plants are more useful in autumn than the various compact-growing, berry-bearing Solanums, of which the older, *S. pseudo-capsicum* and *Capsicastrum*, and the more modern forms, known as Hender-

soni and Weatherall's Hybrid, are familiar examples. The plant is allied to these latter, and may in fact be regarded as a good selection of Weatherall's strain. Mr. Williams, by whom it is being sent out, says that it is 'one of the finest forms of recent introduction.' The plant is singularly compact and short-jointed in habit, and is completely laden with large bright coral-red berries, which are more or less clustered. As these berries take on color they are said to thrust themselves beyond the leaves, as it were, so as to become fully exposed to view. This dwarf compact habit, and the profusion in which the highly-colored fruits are produced, will make it an invaluable decorative plant."

A FEW FINE PLANTS.

Knowing the desire of our readers to learn something about everything that is new and good, even though they may not be able to possess all, we now give descriptions of a few very interesting and valuable plants, and shall in future numbers continue to illustrate the more important and useful members of this class. It will be noticed by many that the questions they have asked are answered in these descriptions just as effectually as though we had published their inquiries and answered them directly in our Pleasant Gossip. Indeed, for several months we have written scarcely an article that was not designed to answer the inquiries of a good many of our friends. The same is also true of our illustrations. Readers, we are quite sure, will not think it a trouble to hunt up the facts they need in a general article, for in the search they will be likely to gain other and perhaps more valuable information.

DOUBLE GERANIUM.

We here give a drawing of the type of double Geraniums introduced the past two years. In



no class of plants grown has there been a more marked improvement. The open style of the flower shows off its rich colors much better than the old, close petalled varieties that were so generally cultivated. The newer ones are as

free bloomers as the single varieties, and the range of colors just as great. The trusses of some are immense. Although but few can be called winter blooming, yet we hope that this winter's experience may add some to the list.

THE CAMELLIA JAPONICA

is a native of China and was sent to England in 1739 by Father Kamel, a missionary, for whom it was named. As a house plant the Camellia



requires considerable care, on account of the tendency of the flower buds to drop off. A northern exposure is best, and a temperature of from forty to fifty degrees. When the buds are swelling water plentifully with warm water, but allow none to stand in the saucer. Sponge the leaves once a week. In the spring put the plant out in a shady place on the north side of a house or fence, not under the drip of trees, and water it every day. Set the pots on a hard bottom, so that no worms can get into them. They form their flower buds during the summer, and at this time a good growth of wood must be encouraged.

MARANTA ZEBRINA.

The taste for really ornamental foliaged plants is growing stronger every year; and with good reason, as many of these plants flourish where it would be impossible to make blooming plants show any flowers. The Maranta does best in a fernery or wardian case. The peculiar velvety shades of green are very beautiful. In room culture they should be kept in a warm place, with plenty of light. Care must be taken to keep the leaves from touching the glass, or other plants, as they are easily disfigured, and then the beauty of the plant is destroyed. As much of plant beauty consists in grace of form and foliage as in elegance of flowers.



PELARGONIUM.

This class is often called Lady Washington Geranium. Although not as free bloomers as their near relatives, the Geraniums, still the size of the individual flowers, and their delicate



colors and pencilings class them among the most desirable of our spring blooming pot plants. They require re-potting every spring and fall, and delight in rich soil. Old plants can be wintered in the cellar, but must not be allowed to wilt for want of water.

RIVINIA HUMILIS.

A pretty, neat little plant, bearing racemes of small white flowers followed by small, bright-red berries, that hang on the plant for a long time. It is almost always in bloom. The foli-



age is dark-green, clean and glossy. It is often grown in ferneries, where the deep red of the berries forms a pleasing contrast with Ferns and Lycopods. Young plants can be raised from the seed.

LANTANA.

This ever-blooming plant is not as much cultivated as it deserves to be. The compact heads of flowers of different and changing colors, white, crimson, orange, rose, and yellow—often three or more in the same truss,—make them very interesting. Although they bloom when scarcely three inches high, they are often grown from ten to twelve feet—perfect pyra-

mids, crowned with bloom. Bedded out in summer, or in pots in winter, a fine display of flowers will surely reward the careful cultivator.



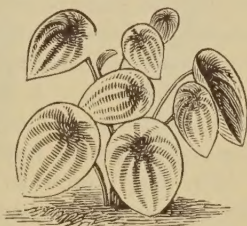
This is one of those plants that will retain its popularity for a long time, both on account of the beauty and abundance of its flowers at all seasons of the year.

CAMPSIDIUM FILICIFOLIUM.

A comparatively new climbing plant, with graceful, fern-like foliage. It is a rapid grower and suitable for the house and conservatory in winter. It has no need of flowers, as the foliage is an ornament in itself. Do not allow the soil to become wet and sodden, as then the plant is apt to drop its leaves. It branches freely, and succeeds in any ordinary garden. It is also very fine for a window box out of doors in the summer, growing much stronger than it does in the house.

**PEPEROMIA MACULOSA.**

An exceedingly pretty dwarf, ornamental foliaged plant, with very thick, glossy, bright-green leaves, which have peculiar grayish white markings along the veins. It is very easily grown, will endure the dry heat of living-rooms without injury, and it is always bright and pretty. The whole plant is less than six inches in height. The leaves are very numerous. It is also much used for ferneries and wardian cases.





CARROTS.

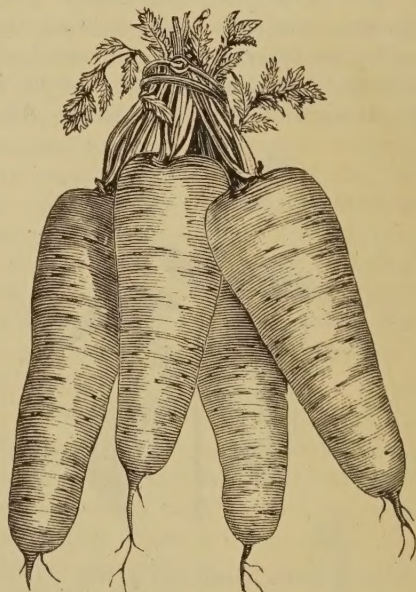
In my last I told some of the pleasures of gardening—VEGETABLE GARDENING, I mean; and no one need smile at this. Anything is beautiful that is nicely adapted to the purpose for which it is designed. I have seen a great many beautiful cottages, even workmen's cottages, in some rural spots in England, and I have seen some very beautiful farm houses, in both Europe and America, and these houses were surrounded with stacks of hay and wheat, and the cows were sleepily chewing the cud beneath their shade, and the pigs were rooting about, and all these, and the chickens, too, added to the beauty of the scene. But, if these farm houses, and cows, and pigs, and poultry had been located in a city, everything would have been out of place and, consequently, ugly.

Well, what has that to do with vegetable gardening, and particularly with Carrots? A great deal, every way. I want to show that a vegetable garden is just as handsome in its place as the Rose garden, and a Carrot prettier in the kitchen or in the stable than a Camellia or a Dahlia.

I have now before me about twenty bunches of Carrots, some five or six in a bunch. They were from a nice clean sandy soil, but deep and rich, and they are as smooth as though they were cut from marble, and a hundred times more beautiful. They range in color from the deepest orange—almost red—to a creamy white, and in form from the long, slender, tapering Altringham, to the little dumpy fellow, about the size and shape of an apple, which the French people are so fond of in their soups; and a Frenchman would about as soon go without his wine as his soup. I don't know of anything prettier than these fine, smooth, highly-colored Carrots, as they are now before me.

Why did I grow so many kinds? Just to learn which was the handsomest and which was the best; and I have learned something, but, perhaps, I shall know more next year, for I shall try again. At present I will describe a few of the varieties and give some ideas of their

merits; but first I will just say a word about the value of the *Carrot*. If farmers knew how valuable they are for cattle and horses, and for everybody and everything, almost, the Carrot would be grown much more abundantly, and a good store would be found buried, or in the farmers' cellar, every autumn. What the Apple is to the family the Carrot is to stock. It is juicy and refreshing and just what the stock need when they have so much dry food in the long, tedious winter, without a blade of grass or a juicy vegetable. Now, a word about the kinds. My object in testing the leading varieties of Carrots this summer was mainly to see



HALF-LONG LUC.

if there was any special value in the new kinds recently sent out, by the French, I believe, and called *Coreless*, and the *Stump-rooted*. Of course it is known to everybody that the Carrot has a somewhat hard core, and in some varieties this core constitutes one-half of the Carrot, and is hard and solid. How it compares in nutritious qualities with the outside I do not know, but it has very little of the Carrot taste, and is somewhat sweet. I find that the *coreless* sorts, as they are called, have a smaller core, or

heart, and that it is tender and does not separate readily from the outside.

Most of the old varieties taper gradually from the top to the bottom, but the new *stump-rooted* kinds, as they are called, are of nearly the same size all the way down, terminating with a short, slender tail, like a rat's. I will try to describe some of the best sorts, and if you will aid me with a few illustrations, it will make the subject quite plain, I think.

LONG RED CORELESS.—The *Long Red Coreless* is both a coreless and stump-rooted variety, growing, with me, ten or twelve inches in length and nearly two inches in diameter. The core is very small, of exactly the same color as the outside, and I judge it to be a very good variety. (This was shown in the May number.)

HALF-LONG LUC.—This is a new variety sent out by the French, and it seems to be a promising kind, less than a foot in length, thick and solid. I don't know what "Luc" means. (The engraving shows the form of this variety very truthfully.)

HALF-LONG SCARLET CARENTAN.—This is a very pretty little Carrot, from six to eight inches in length and nearly two inches in diameter at the top. It is as nearly coreless as any of the Carrots and of good quality. This variety I have tried three years, and I find it grows larger, that is, from seed grown in this country, and perhaps it is losing some of its original characteristics, for it is becoming more tapering.

HALF-LONG SCARLET STUMP-ROOTED.—This is a very good Carrot, and perhaps one of the best for general use, growing only six to eight inches in length and plenty of them four inches in diameter at the top. (This is figure 4 in the engraving.)

EARLY SHORT HORN.—This is the best, or at least one of the best Carrots in the world for table use, and indispensable in soups. It is so short it can be pulled without trouble, and it will grow very thick without suffering injury. I have this season taken hold and pulled them up by the handful, half-a-dozen or more at a time. I have sometimes thought that as many bushels of this kind could be grown on an acre as of any other. Perhaps, however, this is not so. Five inches is the usual length. (Figure 2.)

VERY EARLY SHORT HORN.—This Carrot I consider of little value for this country. It is

only good for forcing—at least, it is best for this purpose, and as it is small, both top and bottom, a great many may be grown in a cold-frame or hot-bed; but American people, I think, do not love Carrots well enough to pay the gar-

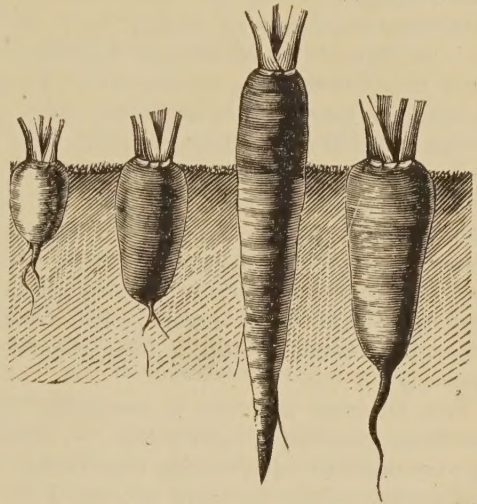


Fig. 1. Fig. 2. Fig. 3. Fig. 4.

dener for raising them in this way. It is all right for a city like Paris, where a good price can be obtained for an early fresh Carrot, and where soups constitute a large part of the sustenance of the people. I find in the open field it only comes into use a week or so before the Short Horn. (Figure 1.)

Among all the large Carrots the one I like best is the *Altringham*. It is rather slender—say two to three inches at the largest part and eighteen inches in length, with an inch or two

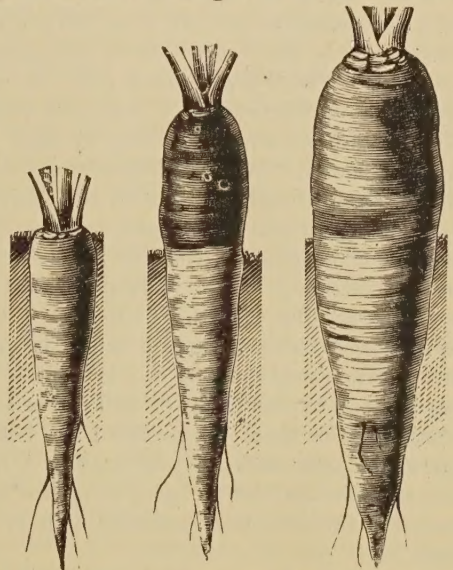


Fig. 5. Fig. 6. Fig. 7.

of green at the top. It grows well out of the ground, generally about one-quarter of its length. It is the highest-colored Carrot I am acquainted with, being a very deep orange, and

it must be just the one farmers need for coloring. It is a far better kind than most people are aware of. (See engraving figure 3.)

THE LONG ORANGE is a favorite and common variety. I don't know that this is its true name, though of course it is good enough, for it has been so called a good many years; but I find that *James's Intermediate*, an English sort, is the same in substance, and sometimes I have thought was better. (See engraving figure 5.)

THE OLD WHITE BELGIAN GREEN TOP is the largest of all the Carrots I have ever tried, and I have grown them two feet long and six inches through, though this is unusually large. It grows nearly half above ground, which makes harvesting quite easy, and the part above ground is green while all below is white. It is a good Carrot for feeding to stock. (See engraving figure 7.)

THE ORANGE BELGIAN is something like the White, generally a light yellow, but differing very much in color, varying from yellow to light orange. This diversity of color I have always noticed, no matter how true in form. (See engraving figure 6.)

I did not design to talk so much about one kind of Vegetable, but just having my crop of Carrots before and in my mind, couldn't help it. Next time I want to say something about the Farmer's Garden.—TERRA.

TULIPS.

FRIEND VICK:—Often while reading the MAGAZINE I have thought I would write and tell of my success and experience with flowers. I fully determined to say this, if no more, while reading Mrs. A. H.'s request for a photograph of yourself. Yes, by all means send us one *now*, and we will be content to wait a few years, and then, with an additional one, we shall be likely to exclaim, "What an improvement time and age have wrought!" But to the flowers. I will begin with the Tulips, and perhaps that will make as lengthy an article as you will care about at one time. Seven years ago I scarcely knew what a Tulip was, only by name. I was visiting friends in the east, and while in Ann Arbor was presented with a double handful to bring home. I commenced to read and re-read carefully articles about Tulips, that I had before slightly ran over, and all said, have a "rich sandy loam"—and let me add, to secure success that is the first, most essential step to be taken.

I can scarcely close here, for I must tell you my handful have greatly increased, and two years ago this fall I saw that it was very necessary they should have new quarters, and one day I asked my husband if the boys couldn't

have a holiday and make me a tulip bed. "Well, yes," said he, "if it must be made they can have time to-day as well as any other day." They went willingly to work, or should I say play, and drew four loads of hard-head and five of rich dirt, the washings of the farm, and placed near the center of the front ground, and when night came had concluded if that was having a holiday they would choose to work next time. But, to conclude, we have never regretted having spent that afternoon for that purpose. This spring being cool and showery, they were in bloom three weeks, and were simply "gorgeous." One lady remarked, "If that mound was in my yard I would not have it removed for \$100." I try to keep it in continual bloom with *Portulaca* and *Geraniums*.

Next to the Tulips I greatly prize the Lilies. I have the Tiger, White Day, Fragrant Yellow, and one I bought of a florist—he called it Japan. It resembles the one you call *Lancifolium*. It grew about two feet and had five blossoms, which were white, with dots of pink, resembling wax. Often, while admiring them, I would recall the beautiful words of our Saviour when He said, "Consider the Lilies." —MRS. H. H., *Footville, Wis.*

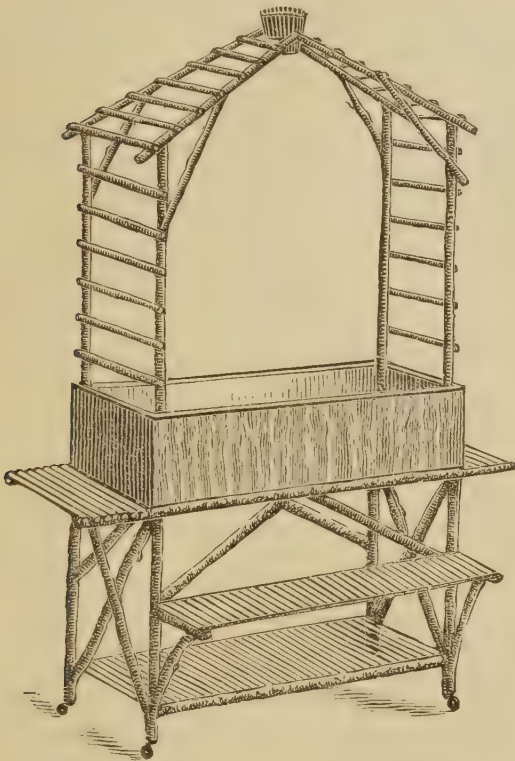
MY PEAS.

I determined to write you about my Peas at once. Last spring I hesitated about what kind of Peas to send for; but, for early, tried Vick's Extra Early. My garden was to fence, and it hindered me so I was late, and a number said, "My Peas are up; I will be ahead of you this year!" But mine came up and bloomed before theirs by two weeks. One man went to a seedsman and got Peas for ten cents per pint, and laughed at me for paying so large a price, and his were not in bloom for two weeks after mine, although planted first.

My seeds have acted strangely this season; for instance, I planted seeds of Hathaway's Excelsior Tomato, Golden Trophy, General Grant and Trophy all in one day—the two first were in bloom when the two last were coming. I thought my Zinnia seed did not come well, and after I transplanted and got the bed in order how they did come; so with my *Celosia cristata*. Only one seed of my *Celastrus scandens* came up. My Lettuce was splendid. I give away quantities of it, and all say they never saw as nice before. I never saw as many Peas on vines before. Our Roses were gone before the Rose bugs came this year. They did injury to Apples, Peaches, Grapes and all small fruit. In about a week after they came, my *Halleana* Honeysuckle was almost gone—they eat leaves and all.—MRS. D. M. S., *Carlyle, Kan.*

WINDOW BOXES.

However fond one may be of flowers, there will be days during the winter when the care of them in pots will be irksome, as, with their rapid evaporation, they need unremitting care in our warm, dry rooms. For this reason, as well as for their more sightly appearance, we have preferred for some years to use window boxes for the major part of our plants, using pots only for specimen plants or such as require some special care. Window boxes have the advantage of not only appearing well to our neighbors from the exterior, but also "furnish," as the ladies would say. If properly started, with good porous earth well mixed with sand or sawdust, they require very slight attention



and will contain a most astonishing number of plants. They have, as usually fixed in the windows on brackets, the great disadvantage of being unwieldy and taking up too much needed space in our few sunny windows. To utilize every inch of this space we have this season devised a stand which seems to meet the requirements, furnishing room for box and pots, and accommodations for upright, trailing and climbing plants; and, being mounted on castors, it may be readily reversed or moved where desired. As the cost is really nothing, to one who has access to any wood lot, except a few hours rather pleasant work, we have thought it might interest some flower lovers to have the design. It is, as will be seen, perfectly simple

and easily put together with a few ordinary tools, and by any one who can drive a nail and use a screw driver.

The box is made of rough boards one-half or three-fourths of an inch thick, (a very good size being two feet long by nine inches wide and eight inches high,) nailed tightly together. It will be well to put a long screw in each corner, to hold it securely against warping. This may be lined with zinc, or will do as well if coated over inside with roofing pitch. If you cannot compass either of these, use it plain, only be careful to make your earth light and porous. Cover the outside of the box with thick, coarse bark, tacked on with brads and sawn off after tacking the top and bottom. If you can procure a long woody vine, like the Bittersweet, to wrap around the box horizontally, it will make a good finish.

Make the stand high enough to raise about three-fourths of the height of the box above the bottom of the window sash, proceeding by cutting saplings, say an inch or an inch and a half in diameter, selecting straight or moderately straight pieces for the four legs. Screw to each pair of these, at the top, a long cross piece to reach six inches beyond each end of the box, and at about three inches from the bottom other pieces of lengths required. The two pieces may now be fastened together by temporary cleats while the cross bars and braces are adjusted to their places. All should be made tight and fine with screws and nails. A small "Morse" or straight drill will be very useful in making screw and nail holes to prevent the splitting of thin wood. About half way up the legs we fasten crotches for baskets, to which we nail long cross pieces, and tacking small twigs across these we make a useful shelf. Nail twigs also across braces in the lower part of the stand, and across the projecting top braces.

For the trellis nail an upright to each corner of the box, and cross pieces slanting up to the center where they are fastened in pairs with screws, and brace with a cross piece at the top of each upright. With a brad-awl pass two pieces of soft wire through small twigs to make a round pot, cover or holder for a four inch pot, and secure this with wire between the corner pieces of the trellis. Fasten small twigs across the trellis with brads. A set of common iron castors should be fastened to the legs before the trellis is commenced.

On such a stand as this we have on the bottom shelf pots and boxes of vines, as English and German Ivy, Maurandya and Smilax, to train over the trellis, which is crowned with a pot of that prettiest of all droopers, Coliseum

Ivy (*Linaria Cymb.*) On the end shelves we have Oxalis, etc., and on the front ones Carnations, young Fuchsias, and such like. The box contains a general assortment of foliage and flowering plants.—J. F. G., *New York City.*

A GARDEN PIT.

Your remarks in a recent number of the MAGAZINE about saving garden plants for winter I think of great value, and will save those who heed them a good deal of money and give them some pleasure. We have a good many things, however, that one cannot find room for in the house, and I wish to tell my plans. Of course, things that are quite tender cannot be saved, but there are a few things that are not quite hardy at the North that, with a very little trouble, may be saved as well as not.

I dig a pit, say two feet in depth, and look well to the drainage, so that water will not settle into it during winter thaws, or in the spring. In the bottom of this I plant Tritomas, Carnations, and things that will bear a good deal of frost but are not quite able to stand our severe northern winters. I find it a good place to keep over young Hollyhock plants, and sometimes make a little bed of Pansies in one corner. As soon as I have everything planted I cover the pit with boards loosely, leaving spaces between each for air. Over the boards I throw some straw or corn stalks, and when there happens to be a few fine days I remove a good part of the covering, and give the pit a regular airing, always taking advantage of a January thaw for this purpose. If I have an old sash or two I use them instead of some of the boards, for the sake of the light.

I have no trouble in keeping plants in such a pit, and I can pick Pansy flowers from it nearly half the winter, and Tritoma flowers may sometimes be had. Having derived so much benefit from a pit of this kind, I am very anxious that all lovers of flowers should enjoy its advantages.—SENECA.

BRYONOPSIS.

MR. JAMES VICK:—I send you by to-day's mail seeds of a vine growing in my garden. The original seed came from Italy, and was labeled Bryonopsis. I do not see it advertised in your Catalogue, and am not sure that I have the proper name for it; at all events it is a very desirable vine in this climate. The one I have is eight yards long, and heavily loaded with this little gourd-like fruit, the green and ripe often in the same cluster with the blossoms, which are small and of a yellowish white color. The leaf is not unlike that of the hop vine. I planted the seed in March or early in April,

in a box. It was a long time in making its appearance, and I thought would prove a failure; but this one plant did not show itself in the garden until late in May, I should think, and was taken up and transplanted there from the box with another plant.

It has been so much admired by every one that I thought if it was not known in this country, and could be grown so easily, it should be in the hands of some florist. Therefore I take the liberty of sending you the seed, hoping you may be as well pleased with it as we are.—L. F. HOWE, *Hampton, Va.*

The plant is correctly named. It will be found figured and described in the November number.

TO DESTROY MOLES.

In one of your MAGAZINES you expressed a wish for some of your customers to try getting rid of moles by using oil and water. In the absence of paraffin oil I used common carbon or lamp oil and water, about one-third oil and two-thirds water, with perfect success. Our yard and garden were both pretty badly infested with the little pests until I tried the oil and water cure. You recommend hellebore for the currant worm. Quite as effectual a remedy may be found by merely sprinkling the bushes with coal-ashes after a rain or while the dew is on. One dusting is usually sufficient.

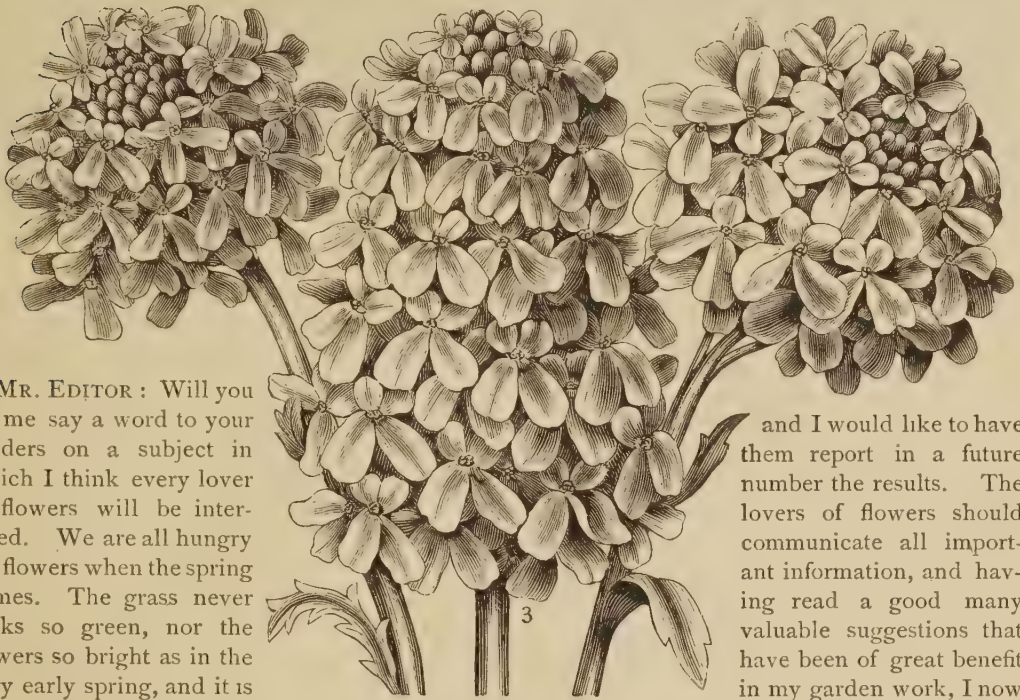
My seeds grew finely in nearly every respect, and I think, without bragging, I had the finest Pansy bed in the neighborhood. It was fully eight feet long by two feet wide,—a perfect mass of bloom, the flowers ranging from two to three inches in diameter. I counted one day forty blossoms on a single plant, the smallest not less than an inch across.

Your MAGAZINE has been a most welcome visitor here since last January. I don't feel as though I could do without it next year, so I have commenced to try getting a club again.—MRS. L. A. H., *East Bethlehem, Pa.*

Our currant worms must have stronger constitutions than those that trouble the good people of East Bethlehem. Here they do not mind ashes, or use it, perhaps, to sharpen their teeth.

COVERING FOR TENDER PLANTS.—I always disliked the looks of clumsy straw and matting coverings for plants. It made the garden look so mean that I thought I would try another plan. I had always read in your publications that evergreen boughs were the best thing with which to cover Pansies and any tender, low plants, so I thought I would try it on tender Roses and such things, and I never had such success. I believe there is something beneficial in the balsamine odor of the leaves, the plants look so nice—almost like summer.—MRS. A. G.

SMALL HARDY FLOWERS FOR SPRING.



MR. EDITOR : Will you let me say a word to your readers on a subject in which I think every lover of flowers will be interested. We are all hungry for flowers when the spring comes. The grass never looks so green, nor the flowers so bright as in the very early spring, and it is very few indeed we have at that time, though we are very thankful for the few. Of course there are the Crocuses—but they are soon gone—and the Narcissus, and Tulips and Hyacinths—all grand, but fit only for large bouquets and vases. What we need is a few small flowers that will bloom very early, and be nice for small bouquets, the button-hole and the like. I will now only recommend one kind which I have found valuable for this purpose and without which I am sure I should feel very much at a loss, the hardy little CANDYTUFT.

I sow the seeds in the autumn in little beds, and get nice young plants up and vigorous before winter sets in. Sometimes I throw a few leaves or a little straw or evergreen boughs over them, but when this has been neglected I have hardly observed any difference in the condition of the plants in the spring. Very early in the season these plants furnish an abundance of small flowers for cutting. I really cannot say at what time, as I have taken no record of dates.

In some cases, when thinning out the plants from the beds, I use the surplus for making a border around my beds of bulbs, and I do not know of anything that makes a prettier or so cheap a border.

The hardiest of all is the little white variety, though the purple is nearly as reliable. The *Rocket*, bearing a conical white raceme, is excellent for the center of a bouquet, and the flowers and clusters are larger than the other sorts. I hope your readers will try this plan,

and I would like to have them report in a future number the results. The lovers of flowers should communicate all important information, and having read a good many valuable suggestions that have been of great benefit in my garden work, I now

offer my mite for the general good. Perhaps some of the readers of the MAGAZINE may be able to tell of a flower equally valuable for early spring use. Indeed, I will just name the Pansy. It often gives me its flowers even before the snow is entirely gone.—CORUNNA, of Michigan.

We give engravings of the three varieties of Candytuft named by our correspondent—the *Rocket* in the center, the *White* on the left of the group, and the *Purple* on the right. The Candytuft is a valuable little flower for the purpose suggested.

PÆONIES.

Of all the grand displays of flowers I have seen this year, and I have “been about” a good deal, having recently returned from the Paris Exposition, I must say that among all the new and rare and beautiful things that have come under my notice I have beheld nothing so gorgeous as that made by a collection of Pæonies. The bed was circular and very large; in the center was a mass of a dozen or so of some dark, purplish variety, next to this a couple of rows of crimson, then pink, and so on shading to white on the outside.

I have seen magnificent beds and banks of Rhododendrons and other costly plants, but nothing to compare to the Pæonies. Then it is so hardy, and not at all particular about the soil, as the Azaleas and Rhododendrons are, that I think everybody in America who owns a garden should have a little clump at least.—ROSALIE.



DAHLIAS, HOLLYHOCKS AND GLADIOLI.

The following interesting facts concerning three of our grandest flowers, the Hollyhock, Dahlia and Gladiolus, is from a correspondent of the *London Garden*. No country in the world that we ever visited is so completely adapted to the Gladioli as ours, and our own seedlings in a few years will surpass all in numbers and beauty; at least so we think:

"Of all our autumn-blooming plants, the Gladiolus must, I think, carry off the palm—the Dahlia and the Hollyhock must give way, notwithstanding their long and well-deserved popularity, to the Gladiolus; indeed, the Hollyhock seems to be taking itself out of the way, the mysterious disease which has affected it having baffled all attempts to get rid of it, and the raising of seedlings being equally fruitless, for the seedlings seem as subject to it as the old plants. The Hollyhock, too, is more suited for giving grand effects, and when grown in quarters by itself takes up a great deal of room. The Dahlia one cannot disparage. A great authority once called it 'lumpish and inelegant.' Judged by some standards of beauty, it may be so; but we recollect that there are various forms of beauty: we may admire the solid grandeur of the Egyptian temple as well as the graceful and airy form of the Gothic cathedral. In the symmetrical form, the varied colors, and the stately habit of the Dahlia there is a beauty which has won for it the favor and affection of many a devoted enthusiast; but the Gladiolus has many claims to the consideration of the lover of flowers. Its erect habit, the varied colors it displays, the small space of ground it occupies (for several hundred sorts may be grown in a space which half-a-dozen plants of Dahlias would occupy), the manner in which it blooms in water after it is cut, lasting for many days and opening out its upper blossoms as the lower ones decay—all combine to make it one of the most beautiful and deservedly valuable of florists' flowers, while the improvement that has taken place of late years has given it a beauty which the older flowers never possessed.

Like many of our modern flowers, we owe our first advance in improvement to Continental growers—the Aster, the Verbena, the Phlox, the Pentstemon, and especially the Rose, were all taken in hand by the French before they were attempted on this side of the channel. So it was with the Gladiolus. It must be now forty years since Mons. Souchet, then head gardener at the Chateau of Fontainebleau, now a venerable and respected private citizen, beloved by all who know him, began the improvement; and although some few others, such as Messrs. Courant, Berger, and Gardier, have followed his example, yet nearly the whole of the varieties now in commerce (as far as France is concerned) are of his raising; and not only so, but almost the whole trade is in the hands of Messrs. Soulliard & Brunelet, his successors; they supply the great French houses of Paris, by whom the bulbs are forwarded to all parts of the world. At a later period than this Mr. Kelway, of Langport, in Somersetshire, began his culture and hybridising of the flower. This year he issues his twenty-seventh catalogue, so that I should suppose it must be some thirty years since they began; and, as in many other cases to which I have already alluded, the English raiser has equaled and excelled his French rival."

PHLOXES IN LINES AND MASSES.

Those who have cultivated the Phlox in the shape of single plants in mixed borders, and have not had an opportunity of seeing them planted in masses of distinct colors or in long lines of one variety, can scarcely conceive how exceedingly effective they are when thus planted. Pelargoniums and other tender plants, so commonly met with in beds and ribbon borders, have but a poor effect when compared with a ribbon border or beds of some of the fine Phloxes now in cultivation. If half the labor was bestowed on our brilliant autumnal Phloxes that is bestowed on some of the tender plants of the day, our gardens would have a much more massive and brilliant effect. Of course, reference is now made to the autumnal varieties

of Phloxes, which come into bloom in August and last till October. Let any one who wants a hardy and brilliant ribbon border take—1. Phlox Lothair, salmon, shaded with violet; 2. P. Mons. Henrique, brilliant reddish-crimson; 3. P. Venus, pure white; 4. P. Mons. Gulden-schugh, rosy-violet; 5. P. Spenceri, dark, rosy-lilac. These give five lines sufficient for a ten-foot border, and ranging in height from Spenceri, fifteen inches, to Lothair, four and a half feet. An excellent front edging for this border is the variegated Periwinkle. In order to grow these thoroughly well, and so to insure a lengthened period of blooming, the ground should be deeply trenched and well enriched with good manure from the farmyard, and not more than six heads of bloom should be allowed to each stool. Thus treated, when planted in long lines, it is difficult to convey an impression of these and similar varieties.—*The Gardener*.

BOUQUET DAHLIAS.

Walking through Covent Garden Market the other day I made one flower a special study, not the best flower for bouquet-making either, but one, nevertheless, that was used in considerable quantities at all the bouquet-shops, and by the hawkers who hang about on the pavement near the church at the west end of the market, ready to surround and push their bouquets into the face of any stranger likely or unlikely to become a purchaser.

The flower to which I allude was the Dahlia, and I asked myself the question, "Why could not the women with their baskets have as good Dahlias in their bouquets as Mr. Dickson, Mr. Buck, or any of the other bouquet-makers in the center row?" In Mr. Buck's shop I saw some very pretty bouquet Dahlias made up with other flowers—a pure white variety, which I took to be White Aster, was made up into the best bouquets. None of the hawkers had these bouquet Dahlias, nor did I see them at the cheap stalls. They all had the large-flowered show sorts. Surely flowers of bouquet Dahlias could be produced cheaper than these lumpish flowers, most of which were but third-rate.

Bouquet Dahlias are infinitely superior to any of the other sections to use for room-decorations and for bouquets; some of the pure white sorts are quite charming. They are very easily cultivated, equally so with the other sorts, and the large number of flowers produced on a single plant is remarkable. I was much interested looking over Mr. Turner's collection, at Slough. Several exceedingly fine varieties have been raised there, and it seems that the natural tendency of the seedlings raised from the bouquet varieties is to revert to the large flowers. Of

course all that have this tendency are rejected, and only the diminutive, well-shaped flowers are saved, and such as are distinct and of decided colors. Some of the varieties have a tendency to grow rather tall, others are not more than eighteen inches high. Raisers of new varieties ought not to save seeds from these tall sorts, but should get into a dwarf strain, as the tall sorts are not near so useful as border plants. The soil should not be rich, like that generally recommended for the large-flowered section. A border of light soil that has been well worked but not manured answers well for them.—*London Gardeners' Chronicle*.

ENGLISH HORTICULTURE.

MR. VICK:—My impressions of English Horticulture may not be very important, for I cannot be supposed to have learned much in a month; but still I have kept my eyes open and have seen a good deal, and thought a little. I believe the nurserymen of Rochester and vicinity sell more fruit trees in one year than all the nurserymen of England sell in three; and the reason is very plain. In America we are developing a new country and planting tens of thousands of orchards every year. In England the country is occupied, and no new land is brought into use, except perhaps the reclamation of some swamp or fen. The summer and early fall apples of England are choice and rich, but I see none that look like good, solid winter apples, such as our Baldwin or Spy. I have not yet been in Devonshire, however, and that is said to be the best county for fruit.

The English nurseryman seems to devote his attention mainly to very fine specimens of small trees, which are grown in glass houses, called orchard houses, as we in America grow foreign grapes. In the gardens the fruit trees are generally trained on walls or trellises like grape vines. It is a very pretty plan for small gardens, and gives the fruit a better chance to ripen. You do not see apples lying under the trees by the wagon load here, as in western New York, to be fed to pigs or made into cider. Every apple seems to be worth something, and is cared for.

The main business of florists seems to be to hunt up new things, in pursuit of which I judge they ransack the world, besides giving great attention to hybridizing. Happy is the man who can produce or obtain something new—a novelty that all the wealthy people and lovers of flowers will be crazy after. I have been to two Flower Shows, and what grand specimen plants are exhibited, brought from the Tropics and the most distant corners of the earth!—AN OBSERVER, *Southampton, Oct., 1878*.



FRUIT FOR EUROPE.

Our correspondent now in England speaks of English apples, and also alludes to a fact by no means creditable to us, that the ground in our apple orchards is covered in the autumn with fallen and almost worthless fruit, to be eaten by hogs or made into poor cider. The fact is that in the majority of our orchards nearly one-half of the apples grown are not marketable, and even much sent to market is quite inferior, and add nothing either to the credit or wealth of the producer.

Last season we desired, at the request of English friends, to send a good many barrels of choice apples to that country, but several growers refused to supply us, giving as a reason, that to select one barrel of fine fruit would spoil three—a fair acknowledgment that two thirds of the fruit they were barreling was of inferior quality. Two years since we paid double price for two extra selected barrels of Northern Spy apples. From these two barrels we selected one, taking only the large, highly-colored specimens, and a grander barrel of apples we never saw. We wrapped each one in tissue paper, packed all in carefully, filling the interstices with buckwheat chaff. The gentleman to whom they were sent wrote us that every one who saw them was astonished at the splendor of those apples, and one fruiterer offered him five pounds for the barrel, but they were held sacred as presents for friends.

When American orchardists learn to grow their fruit properly, and pick and pack them carefully and honestly, we shall have an almost unlimited and exceedingly profitable market for our apples in Europe. In almost every case our Apple trees are allowed to grow according to their will, and in most varieties the heads become so dense as to prevent the proper ripening and coloring of the fruit. Then, they are allowed to overbear, each tree carrying twice the number of specimens that can be matured. The consequence is a large number of small and inferior apples, with a few very good specimens in the tops, where they can get sun and

air. We must learn to give our trees judicious pruning, and remove as soon as set all surplus fruit, leaving only those that the tree can bring to perfect maturity. In addition, we must give our trees good culture, a top-dressing of proper food, and then we will not spoil three barrels to select one fit to send to any market in the world.

PINE AND OTHER EVERGREEN SEED.

MR. VICK:—Please give instructions when to plant the seeds of the White Pine, and how to prepare the ground for them. I have tried to raise them for three years with but little success. The plants come up well, but in eight or ten days they wilt and dry up. I have been told they cannot be raised here.—MRS. E. H. K., *Tolerance, Ill.*

There is no great difficulty in raising Pine or other evergreen trees from seed. The first requisite after good seed is a light, well-drained soil. Nurserymen usually prepare beds for these seeds about three feet wide, by mixing leaf-mold and sand with the soil to make it light and porous. Then they make preparations for shading the young plants from the hot summer sun the first year, either by a light canvass supported on a frame two or three feet above the plants, or by a lattice work made by nailing laths on two narrow strips of wood, so that the laths shall be about an inch apart; this gives a partial shade, sufficient for the purpose. The shade is given through the hottest part of the day—say from 8 o'clock in the morning to 5 in the afternoon, and then removed; late in the season, or by the middle of September, the shade can be omitted, and the second year will not be needed. It is best to make all preparations in the fall, if possible, as the seed should be sown as soon as the frosts are over in the spring and settled weather has arrived. The seed should be sown in rows, or shallow drills, from four to six inches apart, and, in about two or three weeks the young plants will appear. All that is necessary after this is attention to the shading and to keep the soil between the rows free from weeds—stirring it occasionally to loosen it, and, lastly, watering the plants regularly when they do not receive the necessary

moisture from the rains. At the end of the first season, and at the approach of winter, the plants should be protected so that the frost will not throw them out of the ground—this is best done by gathering fallen leaves and spreading them over the soil between the rows and placing a light covering of them over the plants. In this way they will winter securely, and in the spring the leaves should be removed and the soil lightened up; without shading and with very little attention of any kind the plants will now make their second season's growth, and be ready the following spring to be transplanted into other beds, in rows eighteen inches apart and six inches from each other in the rows. After remaining two years in these beds, they can again be transplanted into rows four feet apart and two feet apart in the rows; here they will attain sufficient size to be fit for their final destination.

THE MOLUCCA BALM.

MR. VICK:—The article in the October MAGAZINE upon the Molucca Balm has revived a desire to tell you a short story about it. Five years ago some friends sent me, from Harvey county, Kansas, several varieties of seeds of prairie flowers, and among them what they called "Lincoln Cup," and of which I raised a few plants the following summer. The next winter you sent out the *Molucca Balm*. I purchased a package, planted and raised a few plants, and was much disappointed to find that it was either Lincoln Cups of the year before, or that was Molucca Balm. They were one and the same plant, shell-like, whorl of spines and all. Now, my understanding of the Lincoln Cup at the time was, that it was a native plant, and, if so, was it a naturalized plant, like the Jimson weed, and where did the seed come from? Please crack this nut for me, and if you are incredulous, I think I could have some seed sent direct to you from Kansas, and you could raise plants and compare.—C. J. JACKSON, *Cincinnati, O.*

The Molucca Balm came from the shores of the Mediterranean nearly three hundred years ago. At times it has been pretty generally cultivated, and then neglected and almost or entirely lost, so that it was impossible to find seeds in the market. Mrs. LOUDON described it in her *Ladies' Flower Garden*, published in 1840, but said, "we do not know where seeds of this species are to be obtained." We never saw it growing wild at the west, nor have we heard of it, or known it to be described in any botanical work, as naturalized. Seeds may have escaped from the gardens and have grown in some sections, but it cannot be general.

Chrysanthemum.—I send you a flower for a name. Will you give the name in your MAGAZINE? I have had the same flower under the name of Camomile, Arnica, Calendula and Chrysanthemum.—C. J. L., *Marshall, Mich.*

The flower is a very good annual Chrysanthemum. All the plants named by our correspondent belong to the same family and have some resemblance to each other.

SAFFRON, WATER LILIES AND DAHLIAS.

MR. VICK:—In your MAGAZINE, page 311, you say, "Only the flowers of Saffron are useful." Please tell us for what they are useful. They do not make the kind of Saffron kept by apothecaries and used as medicine. That Saffron is an expensive imported article, picked with a great deal of labor from a small English flower. The American Saffron is worthless as medicine. Do not help dose the poor children needlessly.

Perhaps those Pond Lilies mentioned do well in a barrel in summer, but what becomes of them in winter? In our pond, on Cape Cod, beautiful pink Pond Lilies grow, and the flowers are for sale every summer in Boston, at one place.

I hope you will plant thousands of Dahlias, for I think they are the one fall flower for bouquets, and they grow almost without care. If there are no children to break off the tip of the main stalk, it had better be done purposely, for then the plants are more prolific than flies. Cut the flowers all off one day for bouquets and the next day they will be covered again. Children are a great help in gardening. If one buys a new plant they always want the flower, and this is the best thing for the plant, as well as the child. Is it not?—S. D. F., *Newton Center, Mass.*

Dear me, we didn't say a word about dosing the children or anybody else. The true Saffron is the stigmas of *Crocus sativus*, and is very expensive. The flowers are gathered just before opening and the pistils extracted, as they contain the Saffron, the rest of the flower being useless. The common Saffron is a *Carthamus*, and in old times was used to adulterate the true Saffron. Now, in the shops little but the *Saffron* or *Carthamus* is to be found. It is extensively cultivated in Spain, France and southern Germany, for the coloring matter which the flowers contain, which is extensively used in dyeing. Then we do not know but it is just as valuable medically as the true Saffron. Either will make a warm drink, and we guess the more water and sugar, and milk, and the less Saffron, the better.

Pond Lilies will not be injured by remaining in a barrel or pond, if the water does not freeze solid. It is best, in very cold localities, to take the barrel to some sheltered place, as a pit or cellar, where the frost will be somewhat moderate.

The *Odorata* is sometimes quite pink in some localities, and in others a little pinkish. These pink Lilies are doubtless varieties grown from seed.

The *Dahlia* is our best autumn flower. We can depend upon it until frost, no matter how long delayed.

DAHLIAS.—I have found by happy experience that by thinning out Dahlia shoots a little, and by even removing some of the flowers when there are too many, I get a more gorgeous display of the most perfect flowers, and if there is anything in this world more perfect than a perfect Dahlia I have never seen it.—A DAHLIA LOVER.

A WILD GARDEN.

DEAR SIR:—Allow me to trouble you with an inquiry for advice. I have a three-acre hillside, sloping eastward down to Lake Michigan. It is timbered with old forest trees and the ground in spring sends forth flowers from such bulbous and tuberous roots as grow wild here. I was thinking of beautifying the place by sowing broadcast in the fall, before the leaves fall, a mixture of such hardy annual and perennial plant seeds as are described in your catalogue. Think you that this will largely increase the floral bloom, or will they die out or even fail to sprout. I also thought of putting in groups a lot of hardy bulbs, such as Lily of the Valley, Snow-Drop, Crocus, and others which you may possibly recommend. The place looks like the primitive, though slightly thinned, forest, no underbrush, is thoroughly protected from all westerly winds, and thus very sheltered; the soil is clay with considerable leaf mould. If you think it worth while to try, I shall try it.—F. S., *Milwaukee*.

And that is just what we have been thinking of writing about for some time—the wild garden. There is nothing prettier in the world than such a wild ramble, where flowers come up almost of their own sweet will, and bloom and pass away to give place to others in beautiful succession. Not that we would like this all the time to the exclusion of other and better kept gardens; but, for a change, how delicious to pass from the lawn and carpet beds and gravel walks into the shady woods sprinkled all over with flowers. What a nice place this will be for ferns, planted in little groups in the most shady places; and how the *Nemophilas* and *Clarkias*, and lots of other flowers that are natives of the shady canyons or cool mountain sides, and that do not like the hot sun, will flourish in such a pleasant retreat. A good many of the bulbs will prosper here, but should be planted in the most open places. The Lilies should also have a place.

A good many of the seeds sown will fail to grow, just as a good share of the seeds from native plants and trees fail to germinate; but those suitable to such a situation are cheap, and any seedsman will furnish a collection at a comparatively trifling cost, and experience will show just what is suited to the soil, shade and other circumstances. The fittest will survive. We once tried to induce the directors of a railroad to sow their embankments with hardy flower seeds, and this will yet be done.

FLOWER CULTURE SOUTH.

MR. VICK:—I do not think it possible for your immense beds of *Phlox* to surpass mine; some of them are so large and such varied markings and colors. I have had pretty good success with all my flower seed, except *Columbine*. I have bought several papers and failed to get a single plant. Can you tell me how they are grown, I am so anxious to have them. Let me tell you of some discoveries I have made. Last summer there was an unsightly hole I wished to have filled, and in sweeping my yard and garden walks I emptied the "trash" into it. In the spring I passed by it, and to my great sur-

prise I found a large Ice plant, the leaves measuring eight and one-half inches across, and the plant more than a foot in diameter, and many *Gypsophilas* in full bloom. They had no protection at all. I have been in the habit of planting the seed in the early spring, thinking the heavy frosts would kill them, but I find I can sow the seed now in the autumn.—Mrs. J. H., *Bayou La Chute, La.*

The *Columbine* seed we think you will succeed with if you sow in the autumn; indeed, in the South it is best to sow the seeds of all the hardy annuals and perennials in the autumn. The experience of our correspondent teaches this fact very evidently.

Autumn Leaves.—If not too late please give me in the forthcoming MAGAZINE the best mode of preserving, in their beautiful colors, the autumn foliage, with which Dame Nature is beginning to deck our forests. In so doing you will oblige many young ladies who would like to make up winter bouquets that will keep their colors. T. K., *Cincinnati, Ohio*.

Autumn leaves require but little preparation, as when fully ripe they contain very little moisture and the colors are quite permanent. However, as they contain some moisture and may curl up if brought into a warm room, place them between papers, giving a light pressure. In a few days take them out and give a very light dressing of varnish, to brighten the colors. For this purpose good clear boiled linseed oil is used, using the least possible amount. Some prefer to use Balsam Fir cut with alcohol; others use gum shellac dissolved in alcohol.

OUR PORTRAIT.—A gentleman in Ohio, who has obtained for the MAGAZINE a good many subscribers, writes as follows:

"I was amused by your reply to the suggestions for your picture in the MAGAZINE in place of the usual colored plate. But, really, most of your thousands of patrons would like to have a picture of the man who has been such a veritable good genius to them; and, if you wanted to gratify them, and could afford it, why would it not be a good idea to have one prepared and offer it as a premium to be sent out with the January number of the MAGAZINE! There, I feel sure I must have taken away your breath with my originality and audacity. Of course you could not afford it, for the MAGAZINE is worth many times its cost to subscribers now, but it gives you something additional as an illustration of the selfishness of the human heart."

Instead of giving our portrait as a premium we will, during the year 1879, and as soon as we can have a good steel engraving made, furnish each subscriber to the MAGAZINE with a copy.

AURATUM LILIES.—A friend at the South desires that we should advise all who grow the *Auratum Lily* to furnish shade, in some way, as soon as the buds are formed, or the hot sun will cause them to fall before opening, while, if shaded, the flowers will be perfect. Too much shade, we find, will cause the leaves to mildew.

THE BALSAM.

I do not think I ever had more pleasure from the cultivation of any plant than I have had this year with the Balsam. Certainly I never appreciated this flower before. I had about twenty plants from one package of seed, that I started in a box, and having plenty of



FLOWERING BRANCH.

manure from a chicken house fed them very well, and the young plants looked so pretty, and the first flowers were so double and so highly-colored that they attracted my attention early in the summer, so I petted them, by watering them with manure water, and the result was, larger plants than I ever saw before, and more beautiful



FLOWER, NATURAL SIZE.

flowers. Very few of the costly house plants are really handsomer. As my garden is sheltered, no frost has yet injured them, so I send you a small branch of flowers. Why could not the Balsam be used as a pot plant by

starting seed some time in the middle of the summer.—MRS. JANE W. ELLIS.

The Balsam is a very excellent plant, and in cold countries, where it is grown with some difficulty, is properly appreciated; but here we can grow it in our gardens without any particular care, and the result is, this very handsome flower is sadly neglected. There is something very attractive to us in the Balsam. The leaves are pretty and the stem and branches almost as transparent as glass. It delights in the kind of feeding and petting which our correspondent describes. It can be pruned into almost any form desired. We sometimes remove all the branches but the leader or main branch, and then this one will grow two or three feet in length and be a perfect wreath of blossoms. Two, three, or more branches can be left, first removing the leader. Pruning and training the Balsam is a very interesting exercise. The Balsam is a good pot plant, and in some countries is principally cultivated in that manner.

Feverfew.—Please inform me through your MAGAZINE the name of the enclosed flower, also how to propagate it. I don't think the seed will ripen. I hope you will give us some hints about the culture of the Lily of the Valley. I have some I have had five years and I have never had but one bloom.—C. P., *Reelsville, Ind.*

The plant is the double Feverfew, called so because a decoction of its flowers was believed to be a cure for colds and fevers. It is nearly allied to the Chamomile, and also to the Chrysanthemum. Its botanical name is *Pyrethrum*. The double variety bears but little seed, and none with common culture. It is usually grown from cuttings. Perhaps the Lily of the Valley is in too dry and warm a place.

INDIA.—To Misses Belle Watson and M. E. Walling, of Barsein, India, we are indebted for several Orchids and Lilies, which we shall care for in the hopes of obtaining something new and good. Miss W. writes; "We have not been successful with our flowers, the only seeds germinating were the Pansy, Carnation, Pink and Sweet Alyssum. Your MAGAZINE has been read in this far-away country with pleasure, and from it we have gained some very valuable information."

FINE FLOWERS.—A young gentleman of Little Britain, Ont., had remarkable success with flowers the past season,—Asters with very large flowers, and seventy on one plant, and forty flowers open at one time on a Scabiosa. The Sensitive plant was a wonder to a good many people. One Dahlia plant during the autumn, up to October 9th, had given sixty-four large flowers, and more coming if the frost did not come first.

OUR FLOWER PREMIUMS.

MR. JAMES VICK:—Allow me to take this opportunity of thanking you in behalf of the East Oxford and Woodstock County Agricultural Society, for the gift of your Floral Chromo, offered as a special prize for the best collection of cut flowers exhibited by an amateur, at their fair, held in the town of Woodstock, September 18 and 19, 1878. The display of flowers was large and really grand, embracing many classes of choice and new varieties, and none of the other classes equaled the one for which your special premium was offered. It has awakened an interest never known here before, and has stimulated many to grow flowers who never knew what a flower garden was before. The contest for your premium was spirited, and the lady, Mrs. J. DODGE, to whom it was awarded, was deserving of great credit.

Please give me a little information on the following: 1. Can choice seedling Verbenas be kept through the winter, if so, what is the best way? 2. Will the Brompton Stock endure our winters, or should they be removed to the cellar. And, if kept in the cellar, do they require light and water? 3. Also, please give the names of twelve distinct varieties of Gladiolus at an average price of fifty cents each. The dozen received last spring gave the best of satisfaction, and in my opinion the Gladiolus is the grandest flower of the garden.—WILLIAM VROOMAN, Oxford Center, Ontario.

We shall offer one of our chromos another year to every county Agricultural Society on this continent, and all other continents, as a prize for the best collection of cut flowers.

1. *Verbenas* will not do very well in the house. The only plan is to start plants from cuttings in the autumn and keep them in a cool room.

2. The *Brompton Stock* is not hardy. It will flower in the winter in a cool room, with plenty of moisture. If designed for flowering in the garden the plants may be kept in a cool, light cellar, with just enough moisture to keep them from famishing; or in a pit. We can flower Stocks, Wallflowers and a great many things in a cool room in winter, that just about freezes in the night and is from fifty to sixty-five degrees in the day.

3. For the best twelve varieties of Gladiolus, costing \$6, we would recommend the following: Agatha, Anna, Cleopatra, Etendard, Eugene Scribe, Giganteus, La Fiancee, Meteor, Meyerbeer, Nestor, Queen Victoria, Rossini.

Propagation of Clematis.—I would like to have you inform me how the Clematis Jackmanii is propagated. Please answer in the next MONTHLY.—C. J. S., Castile, N. Y.

The Clematis is propagated by grafting on C. viticella usually, and the work is somewhat difficult.

Manure for Evergreens.—MR. VICK:—Are any of the Commercial Fertilizers, or are wood ashes suitable to use around Evergreens?—P., South Hanover, Mass.

Manure should be given to Evergreens with great caution. A top-dressing of old leaf mould from the woods is all we would advise.

NEVADA MOUNTAIN FLOWER.

MR. VICK:—Enclosed you will find a pressed flower that grows wild here on the mountains, and I think it is something new. I have never seen it cultivated at the east. It is pure white, exceedingly fragrant, lives in the ground over winter, and looks very much like a Lily. I have saved some seed. It goes to seed the second year. Its smell is almost the same as the Japan Lily.—H. M., Ward City, Nev.

The flower received with the above is an *Oenothera*, but what variety we cannot decide,



having no leaf, nothing but a dry flower. There are several white varieties, natives of Nevada. Our little engraving shows the size and something of the character of the flower. The common name of the *Oenothera* is *Evening Primrose*, because most of the kinds open their flowers in the evening. It is quite interesting to stand beside a plant and watch the sudden opening of the flowers.

TENDER PLANTS IN SHELTER.

Of course every one knows that when woods are cleared off native plants disappear, and the botanist, after tramping for miles to some sheltering woods where, years before, he found some favorite plant, often finds he has lost all his labor, for the trees are gone, and with them all the plants that formerly grew so luxuriantly under their sheltering branches. A lady has just written us that she succeeds in flowering the *English Primrose* in the thin woods, in Michigan, and as we have just received seeds of the *Furze*, or *Whin*, from the ladies of the Convent, at Lindsay, Ont., we thought that perhaps even this might be grown in the neighborhood of sheltering woods.

Lots of half-tender plants and bulbs will flourish protected from the fierce winds of winter by trees, that would utterly perish in an exposed situation, and others that will endure the cold wither and die under our hot summer sun, and thus we are deprived of the pleasure of those plants that are natural to shady dells and cool mountain slopes.

A GOOD PLANT FOR WINTER.

Last winter, for the first time, I grew in the house a plant of the Bleeding Heart, having seen it recommended in one of your books, and was much pleased with it. I only took up the plant from the garden in November—in fact, it was only a part of a large plant—and potted it. It had been pretty well killed down by the frost. I kept it in a cold room with some pots of Lilies and some other things that don't like much heat, for several weeks, and until the weather got quite severe. It soon began to grow directly from the roots, making quite a bush, with plenty of its pretty green leaves. In about six weeks after being taken up it commenced to flower, and I don't think that from that time until spring there was half-a-dozen days in which that plant had no flowers. This season I have taken up and potted three, one of which,



as soon as in good condition, will make a very pretty present for a friend, as I hope to have it looking nice by Christmas. I put the plant out in the garden in the spring. It did not make much progress in the summer, or not till very late, and I did not like to trust it for this winter; but after all, I thought that perhaps it was in just the proper condition, that is if I had taken it up before frost, and without disturbing the roots. The *Dicentra* increases so rapidly in the garden that enough can be had for the house if one gets a plant or two started in the garden. The only question is, which would do best.—EVELYN.

The above, just at hand, is perhaps a little too late to be serviceable this season in some sections of the country, and yet we have removed plants from the garden to the house when the aid of a pick was necessary to break the frozen earth. We would, however, prefer to do the work a little earlier, and this number will reach many readers before severe frosts; and plants can be had of florists until quite late. The *Dicentra* is a good plant both for the garden and the house. We cannot say whether the plant that had been in the house the previous year would have done as well as the new one, never having tried the experiment, but when

doing so well it is hardly worth while to try new plans except by way of experiment. We give an engraving of a *Dicentra* copied from a house plant some time since.

FLORAL SHOW AT DETROIT.—The Committee to award premiums on flowers at the Michigan State Fair, held at Detroit this autumn, write, "The display of flowers in this division was beautiful, and in most of the collections the flowers were perfectly labeled. Your committee were assured by many present that at no previous fair has VICK'S premium brought out so definite and well-named collections. The design of Mrs. J. PARTON OWEN, of Adrian, was a full-rigged ship, and was as unique as it was delicate. It was an ideal exhibition of tasteful arrangement."

A Good Index.—Allow a brief suggestion. Your MAGAZINE is very valuable, but it will be invaluable as a work of reference if the annual volume will be furnished with a complete index, including "Gossip." Make it so complete that any place where any plant is alluded to may be found. Do not be content with a table of contents. Few books are really indexed.—C., Springfield, Ill.

We hope and believe our correspondent and all our friends will be quite satisfied with the Index we give in this number. It was prepared by a lover of flowers, and entirely as a work of love. With this excellent index we think our first volume *very good*, but of course we shall make the next one better.

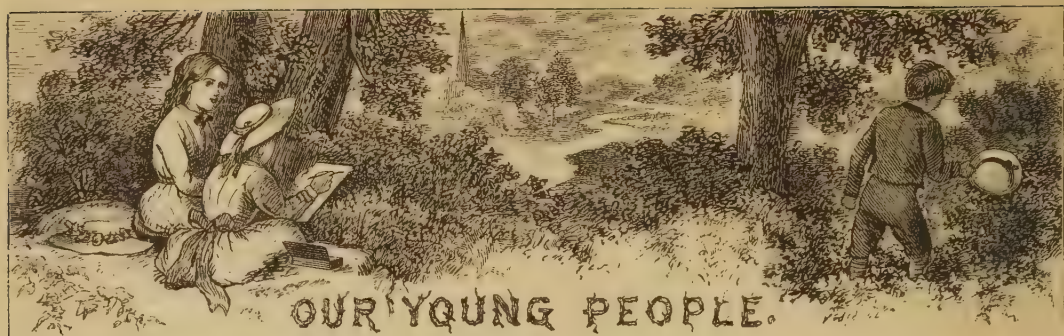
FROM ENGLAND.—From Mr. JOHN HALL, now of Derby, England, we have received plants of *London Pride*, which we shall flower as soon as possible, and thus endeavor to settle a matter which has caused some controversy. One common name, however, is applied to so many different plants, in different sections, that these things are seldom settled, or, at least only for a short time. Mr. HALL also forwarded us some views of lawns and gardens about Derby, some of which we may give our readers.

Origin of the Tulip.—In all that has been said of the Tulip I have never known of any statement of its origin. Of what country is it a native, and how long has it been cultivated?—A FRIEND OF THE TULIP.

The Tulip is a native of Persia and is supposed to have been brought from that country to Europe, by way of Constantinople, about 1560.

Old Man.—Please give me the botanical name of the plant grown in our gardens and known as Old Man. Answer in your next MONTHLY, and oblige.—J. G. T., Karns City, Pa.

The Zinnia is called *Youth* and *Old Age*. There is an *Artemisia* called Old Man, we believe; but these local names are uncertain. A flower should have been sent.



BOTANY FOR LITTLE FOLKS.

With a knowledge of the frequent and conspicuous employment of the Rose as an emblem, from time immemorial, in Church and State and Society, and with a perception of its lustrous beauty in history, and the fragrance it exhales in song and story, it may seem presumptuous to attempt to interest our young readers by a simple analysis of this plant and flower. Such, however, has been our own experience of the pure pleasure derived from the pursuit of knowledge, that we are willing, for the present, to turn aside from the entertainments of the historian, from the fascinations of the novelist and from the enchantments of the poet, and listen attentively to the still, small voice of nature ; what it teaches is true science.



Fig. III. Sweetbriar, (*Rosa rubiginosa*.)

The Rose, in its natural relationship, is the representative of a noble family ; many of its members, as will be presently learned, have always been of the highest service to man, contributing not only to his pleasure, but to his sustenance, in sickness to his health, and in various ways to his comfort. In considering the Rose family or *Rosaceæ*, the mind must not be confined to the different kinds of Roses

merely, but must include all those plants which have flowers like the Rose, for this is what the word *Rosaceæ* means. As it has been shown that double flowers are the result of cultivation, and in a natural state flowers are single, so in this family we are not to take the large, double Roses cultivated in our gardens as the standard by which to compare the flowers of other plants,

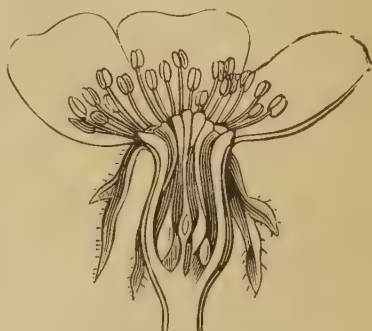


Fig. 122. Vertical Section of Flower.

but the single, wild Rose as it is found growing in the fence corner, or the edge of the woods.

The Sweetbriar (*Rosa rubiginosa*.) grows in very many parts of our country, in thickets and by the roadsides ; although it is a native of Europe it has, like many other foreigners, taken this as its adopted country, and become naturalized. The engraving of this flower shows the stem to be armed with hooked thorns or prickles. The leaves are alternate on the stem, that is, they spring out first on one side of the stem and then on another but are not opposite to each other ; at the base of the leaf-stem or petiole, and on each side of it, will be noticed a little leaf-form or *stipule* ; these stipules are present, in some form, with the leaves of almost every member of this large family. The leaves, which are compound, consist of two pairs of leaflets and an odd one ; the leaflets are oval or usually ovate in form, with serrate edges.

Looking now at the flower, we perceive that the calyx is divided into five parts, the points of which project out beyond the petals ; the petals are five in number ; the stamens and the pistils are numerous, or consist of more than ten each. The vertical section of the

flower, *fig. 112*, exhibits very clearly the situation of the different parts. The receptacle is in the shape of an urn within which, at the bottom and on the lower part of the sides, are situated the numerous ovaries or carpels, each one with a style reaching up to the mouth or opening of the urn or tube, and there bearing its stigma. Around the rim of the urn, and in several rows, stand the stamens, outside of these the petals, and surrounding all is the calyx of five sepals. The sepals appear in a drooping position, as they do in some stages of flowering, although in the bud they are erect, as in *fig. 113*, and become so again on the ripened fruit, as shown at *fig. 114*.



113, Rosebud.

The diagram, *fig. 115*, shows that the sepals and the petals are imbricate in the bud, the stamens standing in three rows and the pistils grouped about the center are readily distinguished. A separate pistil is represented at *fig. 116*. The ovary is thickly beset with hairs, which are also more sparsely present along the style; when ripe the ovary becomes a hard, bony covering enclosing a single seed. At maturity the tubular receptacle, or the fruit, is oval or globose in form, consisting of a dry flesh; the exterior is smooth, shining, and of a bright red color. The calyx remains attached to the summit of the fruit, and on this account is said to be *persistent*.

It is impossible not to notice the resemblance of this fruit to a little apple,—if the calyx were not so large the likeness would be almost perfect; and then the beautiful apple blossoms,

how like little Roses! Did you ever think that Roses and apples were near relations? Probably not; but they are, and you now get a glimpse of the family likeness, and if you will carefully compare the apple blossoms next spring with the single Roses, and afterwards the fruit of each, you will be able to perceive a great similarity, and also to



114, Rose Fruit.

notice in what respects they differ. Besides the Apple, this order supplies us with the Pear, the Quince, the Peach, the Apricot, the Nectarine, the Plum, the Cherry, the Almond, the Raspberry, the Strawberry, the Blackberry, and some other less important fruits. It also gives us the Mountain Ash, so handsome as an ornamental tree; the Amelanchier, commonly called Shad-

bush; the beautiful flowering Thorns and the Hawthorn, largely employed as a hedge plant in many countries; the Japan Quince, a very showy lawn shrub and also of great value as a hedge plant; and the *Spiræas* of many kinds and of great beauty. Is not this a fine list of splendid relatives? Many humble members of the family have not been noticed which, however, are prized more or less highly for their usefulness or their beauty. To indicate in all of these plants the family likeness would be a very agreeable task, but to do this would require so much space that we can now only call attention to the facts without attempting to illustrate them.



115, Diag. of Rosebud.

There are several species of the Rose growing wild in this country, and from one of them, the Prairie or Climbing Wild Rose, have been produced a number of fine double sorts highly prized for their beauty; the principal varieties are Beauty or Queen of the Prairies, and Baltimore Belle,—both compact and double, the former a bright, rosy red and the latter a pale blush, becoming nearly white. Both are very abundant bloomers, and bear perfectly the severities of our climate. The species of the Rose in the old world are numerous, and the great number of varieties, forming the rich stock now in the hands of florists, owe their origin either to Europe or Asia, and are the result of long continued cultivation and the selection of seedlings from the native kinds, or are hybrids produced by cross fertilizing. China, India, Persia and Asiatic Turkey are particularly famous for the beauty, fragrance and variety of their Roses, and the extent of their cultivation.

Florists endeavor to classify the varieties of Roses by reference to their origin. This they are able to do to a great extent, but in many cases the crossings of the species have been so numerous as to make it impossible to trace the parentage with precision. What are called the summer or June Roses are derived from the French or Provence Rose, (*Rosa gallica*), the Cabbage Rose, (*R. centifolia*), the Damask Rose, (*R. Damascena*), and, in some cases, crosses of these with China Roses. One of the results of crossing the European kinds with the



116, Pistil.

China Roses has been the production of a class called *hybrid perpetuals* or *remontants*. These Roses bloom at the usual time in June, and then make a new growth and flower again in August or in the early autumn; the varieties in this class are hardy, and profuse in flowering, producing fragrant blooms of great beauty of form and color, and some of them of remarkable size.

The Moss Rose is considered a variety of the Cabbage Rose which will perpetuate its peculiarities, with more or less variation, by seed; many of these sub-varieties have been produced, but the old common Moss Rose is still the most desirable sort in cultivation. A cross between the China Rose and a variety of the Damask Rose produced what is called the Bourbon Rose, and this has been multiplied into many varieties of great beauty; *Souvenir de Malmaison* is one of the best of this class. What are called China Roses are varieties of *Rosa Indica*, and the Tea Rose is probably a sub-species of the same. The Noisette Rose originated with a florist by the name of Noisette at Charleston, S. C., early in the present century; he obtained it by fertilizing a Musk Rose with the pollen of a Tea Rose. The Yellow Roses form another marked class; the best of these is the Persian Yellow. The Bourbon, China, Tea and Noisette Roses are called *ever-blooming*; they produce their flowers almost continuously, or with interruptions of short duration. The Bourbon Roses, with careful protection, will stand the winters at the North, but the Chinas, Teas and Noisettes are quite tender.

The change of a single Rose to the double Rose of the florist is due, in a great measure at least, to the transformation of the stamens to petals. The manner of this change has heretofore been explained and illustrated by means of the stamens and petals of the Water Lily. The careful observer will perceive in the half double Rose the same change of stamens to petals. A double flower is the result of cultivation; it is not found in a state of nature.

DESTRUCTION OF LIFE AND BEAUTY.

A correspondent wishes us to publish a chapter from ALPHONSE KERR'S "Tour Around My Garden," which we do with pleasure.

"Two shots in the garden caused me to hasten to see what is going on. Nothing less than my friend practicing in the garden, and who had just killed a beautiful Blackbird. This Blackbird was, when alive, the leader of my band. I felt more sorrow than I will venture to tell you when I saw him lying on the ground, with his glossy black feathers stained with blood. All the care I had taken for several years that

the birds should find in my garden a sure and tranquil asylum were rendered abortive by this firing of the gun—the more so from its appearing a kind of perfidy, a meditated murder. In every part of the neighborhood the trees are cut down, birds are taken in snares and traps, or shot with guns. Here alone I have preserved large trees and thick bushes; here I have multiplied Service and Holly trees, with their coral berries; Hawthorn, with their garnet fruit; Elders and Privots, which bear umbrels of black berries; the Burning-bush, with spikes of fire-colored berries; Ivies, whose fruit becomes black with frost; Lauristinas, with dark-blue fruit; small Medlars, covered with red apples, in order that they might find food in abundance during the whole winter. In certain parts of my rivulet I have even lessened the depth, that they may bathe without danger.

"And how richly have all these cares been repaid. In winter the Red-breasts come and live in my greenhouse, and familiarly hop about in other parts of my dwelling. In summer the Linnets make their nests in the bushes and the Wrens in the angles of the walls. All allow themselves to be approached and to be seen, all fly around me without flying away, and all fill my garden with enchanting music. Instead of being seated, crammed into a theater without fresh air, to hear for the hundredth time the same tenor, with the same apricot-colored tunic and the same chocolate boots, sing the same air, accompanied by the same cries of admiration of people who wish to make part of the spectacle, I had three operas a day. In the morning, at the break of day, the Chaffinch warbled upon the highest branches of the trees, whilst the flowers opened their corollas, whilst the rising sun tinted the heavens with rose and saffron. Amidst the ardor of noontide heat the male Linnet, concealed beneath the shade of the Linden tree, raised his melodious voice, while his mate sat upon her eggs in her little nest of hair and grass. But in the evening, when everything slept, when the stars sparkled in the heavens, when the moonbeams played through the trees, when evening Primroses, with their yellow cups, exhaled a sweet perfume; when the Glow-worms twinkled in the grass, the Nightingale raised its full and solemn voice and sang throughout the night its religious and loving hymns.

"What would I not have given to make all my birds, all my melodious guests, understand that it was not I who had made that report, it was not I who had committed that murder! to make them understand that they might come back, that I am not a traitor, that they will find peace and shade here again, that they may come in

the winter, without mistrust, to feast upon the berries of my trees. That Chaffinch, which yesterday came to my very window, will never come again; he will depart from me and from my house; next year he will not again build his nest in that great Elm, in which he has been accustomed to build it every year.

"How is all this to be repaired?"

COTTAGE IN THE WOODS.

As you have told us something about Birds, there is one in our garden that tears the Hollyhocks and Tiger Lilies all to pieces. Once there were four, all in a row, on one long Hollyhock, and another time four were on one clump of Lilies, and I thought if your artist could see them he might make a pretty picture for the MAGAZINE. One of them took its foot to help tear open a Lily bud. I do not know for certain whether they eat the flowers or not. Aunt Mary says they may be hunting insects or larvæ, but they look to me as if they were mad at the Lilies and just tore them up for spite. "What do they look like?" Well, the color is so uncertain, I can hardly tell. They are brownish yellow, with dark gray wings marked with white. They are not very large, but bigger than Goldfinches, and have rather slender bodies and slim, dark beaks, and their legs are long rather than short. It is worth while to have Tiger Lilies just for the birds. The Cat-birds sometimes try to eat the seeds that grow on the stalks next the leaves; but they always spit them out—they think they are berries, no doubt. Are these true seeds? It seems so strange for them to grow that way without waiting for the flowers. Please tell me about them, for I have often wondered at them. Some folks say the Tiger Lily is so common they would not have it in their gardens. I think it is very interesting and handsome. The Humming-birds think so, too, for they visit the Tiger Lilies oftener than any other flowers in the garden. There was another strange little bird in the Locust tree this morning. It had a black head, wings and tail, and dark-red body, and hopped over the spray without touching the trunk or large branches. I wonder why the birds all like the Locust tree better than others?—MARJORIE.

The little black looking "berries" that cluster around the stems of Tiger Lilies are not seeds, but bulbs, commonly called bulblets. If planted they will grow to good strong bulbs much sooner than they could be grown from seed. They often take root and grow very well just where they fall from the plant.

OUR YOUTHS' PAGES.—We have endeavored to make the pages devoted to the Young People both interesting and profitable during this year, and have some fine things in store for 1879.

A PRETTY FLOWER.

MR. VICK:—In a little box I have to-day packed a flower in cotton and put it in the Post office directed to you, and my name is on the outside. The flower looks like a Morning Glory, but it is not, because it does not climb. I bought it for Morning Glory, and it must be some kind of a one, I suppose, because it opens in the morning and closes before night. Please tell me what it is?—RUFUS T. J.

We are glad our young correspondent was careful to put his name on the outside of the box, because very many people forget to do so,



and when we receive half a dozen or more boxes containing plants by one mail, it is hard to find out who sent them, or what information is desired. The flower received in the little box with the name on the outside, is *Convolvulus minor* or *Convolvulus tri-color*, and its common name is *Dwarf Convolvulus*, though sometimes we believe it is called Dwarf Morning Glory. The *Convolvulus major* is the true Morning Glory, if there is anything true about these common names. While, of course, it is well for the young people to learn the common names, and indeed it is quite fun to hunt up all the common names a plant has, we advise all to learn the correct botanical names of plants.

GOURDS.—For information in regard to the two Gourds sent us by a young correspondent of Chemung Co., N. Y., we must refer to a subsequent number, as we have received so many inquiries lately that we have determined to give a pretty full article on the subject, perhaps in the January number. That pretty little striped Gourd, *Bryonopsis laciniosa*, about as large as a Gooseberry, we have received from six different persons within a few weeks.

PREMIUMS.

Some of our friends have suggested that we offer premiums for obtaining subscribers. We never liked the premium business much. Our plan is to furnish a MAGAZINE so good and so cheap that everybody will want it. It makes a splendid volume at the end of the year, and a book of its size would cost, at the bookstore, three times what we charge. We think, therefore, we have a claim on all flower-lovers to aid in its circulation.

As a slight compensation, however, to those who labor among their neighbors in getting up clubs, I propose to give one of our *Floral Chromos*, on paper, to every one who sends us a club of *Five Subscribers*; and for *Twelve Subscribers* one of our *Chromos on cloth and stretcher*, both sent postage free. To any person sending us *Twenty Subscribers*, with \$20 in payment, I will forward by express, expressage paid by me, one of my floral chromos nicely framed in walnut and gilt.

Our price for the MAGAZINE is the same as last year—\$1.25; but to members of clubs of *five or more* we charge only *One Dollar*.

We hope our friends will commence to work early and in earnest. Were all to do what some have done we should have a hundred thousand subscribers by the 1st of January.

BOUND VOLUMES.—By the time this number reaches our readers we shall have the MAGAZINE for 1878 bound in beautiful cloth covers. The bound volume we will forward to any one, postage paid by us, for \$1.50. It will make a nice holiday present—twelve colored plates, lots of illustrations, and about four hundred pages of reading. A book as large and handsome would cost \$5.00 at the bookstores.

TRIALS.—To those who wish to see a number or two of the MAGAZINE before subscribing, we will send a copy for Ten Cents, or three copies for Twenty-five Cents. A good many people are ordering copies at these prices, and sending them to their friends.

LOST NUMBERS.—If a number has failed to reach you during the year, and your volume is thus incomplete, please send us a postal card stating what numbers you want. It will cost you only a penny, and we will mail you the number at once.

FORM A CLUB.—A good many thousands of people who now take the MAGAZINE alone could get up a club of five, and thus have the MAGAZINE for *One Dollar* each, besides doing a great deal of good.

CLOTH COVERS.—We hope all our subscribers have preserved the numbers of the MAGAZINE, so that when the next number arrives they will have a complete set for binding. Any book-binder can bind the MAGAZINE, but cannot furnish neat cloth covers, so we have had made some very elegant cloth covers which we will send by mail, postage free, for twenty-five cents each.

SEND IN NAMES EARLY.—It will be a great convenience if our subscribers will renew their subscriptions and send in their clubs early. It will aid us very much in arranging our books, save a liability to mistakes, and enable us to send the January number so that you will have it to read Christmas Day, or at least can look at the pictures, if you are too happy to read.

A SUBSCRIPTION TO OUR MAGAZINE WOULD NOT BE A BAD HOLIDAY PRESENT.—Our price is so low that we do not feel as though we were pleading our own cause when urging people to subscribe. It is so ridiculously low that one of the popular magazines refused to publish our advertisement with the price attached on any terms.

OUR COLORED PLATES.—Our colored plates are so handsome that a good many people take them out for framing, etc. This we do not like because it spoils the looks of the MAGAZINE, which will make an elegant book when bound at the end of the year. To prevent this we will send extra plates to any one at *five cents* each.

A GARDEN BOOK.—Besides this MAGAZINE we publish VICK'S FLOWER AND VEGETABLE GARDEN, an elegant work, with lots of illustrations, and six beautiful colored plates—five of Flowers and one of Vegetables. It is a book of 170 pages. Price 50 cents in paper covers, \$1.00 bound in cloth.

EXTRA COPIES.—Many persons would like occasionally to send some number of the MAGAZINE to a friend, on account of some article or illustration, but dislike to lose a number from their volume. To our subscribers we will send extra copies for ten cents, or will mail them to any address desired.

FLORAL GUIDE.—The Floral Guide for 1879 will be ready to send out early in December. It will be very handsome—100 pages, a good many hundred illustrations and an elegant colored plate. Sent to any one for FIVE CENTS—about the cost of postage.

We shall say Merry Christmas and Happy New Year in the next number.

